

5,000,000 Shares of Common Stock Offered by the Selling Stockholders

This prospectus relates to the resale from time to time of up to 5,000,000 shares of common stock of NeuroBo Pharmaceuticals, Inc. by the Selling Stockholders listed on page 10 (the "Selling Stockholders"), including their pledgees, assignees, donees, transferees or their respective successors-ininterest, which consist of 2,500,000 outstanding shares of our common stock held by the Selling Stockholders and 2,500,000 shares of our common stock issuable upon the exercise of outstanding warrants held by the Selling Stockholders to purchase shares of our common stock (the "Warrants"). We will not receive any proceeds from the sale of the shares offered by this prospectus.

We have agreed, pursuant to a registration rights agreement that we have entered into with the Selling Stockholders, to bear all of the expenses incurred in connection with the registration of these shares. The Selling Stockholders will pay or assume discounts, commissions, fees of underwriters, selling brokers or dealer managers and similar expenses, if any, incurred for the sale of these shares of our common stock.

The Selling Stockholders identified in this prospectus, or their pledgees, assignees, donees, transferees or their respective successors-in-interest, may offer the shares from time to time on terms to be determined at the time of sale through ordinary brokerage transactions or through any other means described in this prospectus under the caption "Plan of Distribution." The shares may be sold at fixed prices, at prevailing market prices, at prices related to prevailing market prices or at negotiated prices. For a list of the Selling Stockholders, see the section entitled "Selling Stockholders" on page 10.

We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. You should read the entire prospectus and any amendments or supplements carefully before you make your investment decision.

Our common stock is traded on The Nasdaq Stock Market LLC ("Nasdaq") under the symbol "NRBO." On January 22, 2021, the last reported closing sale price of our common stock on Nasdaq was \$5.13 per share. You are urged to obtain current market quotations for our common stock.

We are an "emerging growth company" under applicable Securities and Exchange Commission rules and, as such, have elected to comply with certain reduced public company disclosure requirements for this prospectus and future filings. See "Prospectus Summary—Implications of Being an Emerging Growth Company."

Investing in our common stock involves a high degree of risk. See "<u>Risk Factors</u>" beginning on page 4 of this prospectus and in the documents incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is January 29, 2021.

### TABLE OF CONTENTS

PROSPECTUS SUMMARY	1
THE OFFERING	<u>4</u>
RISK FACTORS	<u>4</u>
CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS	7
USE OF PROCEEDS	<u>9</u>
PRIVATE PLACEMENT OF SHARES OF COMMON STOCK AND WARRANTS	<u>9</u>
SELLING STOCKHOLDERS	<u>10</u>
PLAN OF DISTRIBUTION	<u>13</u>
LEGAL MATTERS	<u>14</u>
EXPERTS	<u>14</u>
WHERE YOU CAN FIND MORE INFORMATION	<u>14</u>
INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE	<u>14</u>

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission, or the SEC, utilizing a "shelf" registration process. Under this shelf registration process, the Selling Stockholders may, from time to time, sell the shares of common stock described in this prospectus in one or more offerings.

Neither we, nor the Selling Stockholders, have authorized anyone to give any information or to make any representation other than those contained or incorporated by reference in this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus. The Selling Stockholders are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where it is lawful to do so. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any shares other than the registered shares to which they relate, nor does this prospectus constitute an offer to sell or the solicitation of an offer to buy shares in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus is delivered or shares are sold on a later date. Our business, financial condition, results of operations and prospects may have changed since those dates. This prospectus incorporates by reference market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. In addition, the market and industry data and forecasts that may be included or incorporated by reference in this prospectus may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading "Risk Factors" contained in this prospectus, and under similar headin

i

### PROSPECTUS SUMMARY

This summary highlights certain information appearing elsewhere in this prospectus and the documents incorporated by reference. This summary does not contain all of the information you should consider before investing in our common shares. You should read this entire prospectus and the documents incorporated by reference into this prospectus carefully before making an investment decision. References in this prospectus to "we," "us," "our" and "Company" refer to NeuroBo Pharmaceuticals, Inc. and its consolidated subsidiaries.

### **Business Overview**

NeuroBo Pharmaceuticals, Inc. (together with its subsidiaries, the "Company" or "NeuroBo"), formerly known as Gemphire Therapeutics Inc., is a clinical-stage biotechnology company.

NeuroBo has a number of therapeutics programs and product candidates designed to impact a range of indications including:

- ANA-001, our lead drug candidate, is a proprietary oral niclosamide formulation and was developed as a treatment for patients with moderate COVID-19. Niclosamide is a potential oral antiviral and anti-inflammatory agent with a long history of use and well-understood safety in humans. ANA-001 is currently being studied in a 60-subject Phase 2 clinical trial conducted in the United States. We plan to conduct the Phase 2 trial and to initiate its Phase 3 development program for ANA-001 in the third quarter of 2021;
- *NB-01*, which is primarily focused on the development of a treatment for painful diabetic neuropathy, but which the Company believes could also treat a range of neuropathic conditions, including chemotherapy-induced peripheral neuropathy and post-traumatic peripheral neuropathy;
- *NB-02*, which has the potential to treat the symptoms of cognitive impairment and modify the progression of neurodegenerative diseases associated with the malfunction of a protein called tau, and with amyloid beta plaque deposition; and
- *Gemcabene*, which is focused on developing and commercializing therapies for the treatment of dyslipidemia, a serious medical condition that increases the risk of life-threatening cardiovascular disease, focused on orphan indications such as homozygous familial hypercholesterolemia, as well as nonalcoholic fatty liver disease/nonalcoholic steatohepatitis.

### **Current Scientific Activity**

In light of the present business environment, including the impact of the COVID-19 pandemic, the Company is currently conducting the scientific activities described below.

*ANA-001*. ANA-001 is currently being tested in a Phase 2/3 clinical trial. We believe that expanding our product pipeline into the infectious disease space will further the development of COVID-19 related treatments that are desperately needed. ANA-001 is a proprietary oral niclosamide formulation and was developed as a treatment for patients with moderate COVID-19. Niclosamide is a potential oral antiviral and anti-inflammatory agent with a long history of use and well-understood safety in humans. ANA-001 is currently being studied in a 60-subject Phase 2 clinical trial conducted in the United States. We plan to finalize the Phase 2 trial and to initiate the Phase 3 development program for ANA-001 in the third quarter of 2021.

*NB-01.* For NB-01, the Company has determined that any attempt to conduct Phase 3 clinical trials, as previously announced, would be difficult if not impossible in the short or medium term. Accordingly, in the first quarter of 2020, the Company directed its contract research organization partners and other vendors working on the Phase 3 clinical trials of NB-01 to cease all work and the Company terminated its existing contract arrangements with each of them.

The Company is currently evaluating its options regarding the NB-01 asset:

- Orphan drug. Development of NB-01 as an orphan drug is among the alternatives the Company is considering. The Company has identified one potential rare disease indication for NB-01, but the Company has not yet conducted feasibility studies for it. The Company believes that development for such indication would depend on its ability to renegotiate milestone payments under its exclusive license agreement with Dong-A ST to reflect the potential revenue from such indication.
- *Nutraceutical*. The Company has considered marketing NB-01 as a nutraceutical (non-pharmaceutical) product, and the Company may re-explore this pathway if the identified rare disease indication for NB-01 does not proceed.

*NB-02.* During the third quarter of 2020, the Company continued work on preparing an Investigational New Drug ("IND") application to the U.S. Food and Drug Administration ("FDA") for NB-02. In order to preserve operating capital, the Company has postponed continued work on the IND and the first human clinical trials for NB-02 until global health and macroeconomic conditions improve, with a view toward commencing clinical trial activity in the second half of 2021, subject to improvement of the constraints imposed by the COVID-19 pandemic. The Company is also considering engaging with a strategic partner to assist with clinical trials for NB-02.

*Gemcabene*. In May 2020, the Company received written communication from the FDA that the clinical development program for Gemcabene remains on a partial clinical hold. The Company continues to review its options regarding Gemcabene.

### **Recent Developments**

On December 31, 2020, NeuroBo acquired ANA Therapeutics, Inc. ("ANA"), a privately held biotechnology company developing ANA-001, a proprietary capsule formulation of niclosamide for coronavirus indications, currently in Phase 2/3 clinical trials as a treatment for COVID-19. The transaction was unanimously approved by each of the board of directors of the Company and ANA.

ANA-001 is a proprietary oral niclosamide formulation in development as a treatment for patients with moderate to severe COVID-19 (patients not requiring ventilators). Niclosamide is a potential oral antiviral and anti-inflammatory agent with a long history of use and a well-understood safety profile in humans.

ANA-001 is currently being studied in a 60-subject Phase 2/3 clinical trial conducted at up to 20 clinical sites in the U.S. Niclosamide has demonstrated both antiviral and immunomodulatory activity with possible downstream effects on coagulation abnormalities observed in COVID-19. In preclinical research by an independent academic group published in Antimicrobial Agents and Chemotherapy, niclosamide inhibited viral replication in vitro and was more potent than remdesivir in the same assay.

Specifically, studies have shown that niclosamide prevents replication of SARS-CoV-2 at very low concentrations and that the compound appears to exhibit three distinct mechanisms of action:

- · acting as a potent antiviral to a broad homology of other viruses including influenza;
- · reducing inflammation without suppressing the immune system; and
- providing bronchodilation, which is a useful pulmonary mechanism for at-risk patients with underlying cardiovascular and/or pulmonary conditions.

As a result, we believe ANA-001 has the potential to reduce the viral load and inflammation associated with cytokine dysregulation, acute respiratory distress syndrome (ARDS), and coagulation abnormalities and thus improve time to clinical improvement as defined as hospital discharge recorded using the WHO Ordinal Scale for Clinical Improvement.

We believe ANA-001 has distinct competitive advantages in this market, including:

- · offering an effective treatment for moderate to severe COVID-19 (patients not requiring ventilators);
- having 3+ year marketing exclusivity in the U.S. upon FDA approval;



- providing ease of administration via a capsule formulation and potential to dramatically lower overall treatment cost; and
- possessing a proven safety profile (generic niclosamide has been used safely for 50 years as a treatment for tapeworm infections).

In October 2020, a Phase 2/3 clinical trial evaluating ANA-001 as a treatment for COVID-19 was initiated.

The two-part Phase 2/3 multi-center, double blind, placebo-controlled study to assess the safety, tolerability, and efficacy of ANA-001 is being conducted at up to 20 clinical sites in the U.S. In both phases of the study, hospitalized patients with moderate to severe COVID-19 (patients not requiring ventilators) will be administered a seven-day course of ANA-001 (niclosamide capsules) in addition to standard-of-care treatment. The first phase of the trial will enroll 60 patients. The primary objective of the first phase of the trial is to assess safety and tolerability; secondary objectives include measurements of efficacy (median time to hospital discharge) and pharmacokinetics. The Company expects to complete enrollment of the first phase of the study and to have topline data from this segment of the trial in the third quarter of 2021.

The second phase of the trial is expected to enroll several hundred patients, with the primary endpoints of the study being median time to hospital discharge, safety and tolerability. Secondary objectives will evaluate clinical improvement and the need and duration for rescue therapy.

### **Corporate Information**

Our principal executive offices are located at 200 Berkeley Street, 19<sup>th</sup> Floor, Boston, Massachusetts, 02116, and our telephone number is (857) 702-9600. Our website address is <u>www.neurobopharma.com</u>. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We make available free of charge on www.neurobopharma.com our annual, quarterly and current reports, and amendments to those reports, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at <u>http://www.sec.gov.</u>

Our common stock trades on the Nasdaq Capital Market under the symbol "NRBO".

### **Implications of Being an Emerging Growth Company**

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). As a result, we may take advantage of reduced reporting requirements that are otherwise applicable to public companies, including delaying auditor attestation of internal control over financial reporting and reducing executive compensation disclosures. The JOBS Act also provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. Because we intend to rely on certain disclosure and other requirements of the JOBS Act, the information contained herein may be different than the information you receive from other public companies in which you hold stock. In addition, it is possible that some investors will find our common stock less attractive as a result of our determination to avail ourselves of exemptions under the JOBS Act, which may result in a less active trading market for our common stock and higher volatility in our stock price. We will remain an emerging growth company until the earlier to occur of: (1) the last day of the fiscal year in which we have total annual gross revenues of \$1.07 billion or more; (2) the last day of the fiscal year following the fifth anniversary of the date of the closing of our initial public offering; (3) the date on which we have issued more than \$1.0 billion in nonconvertible debt during the previous three years; or (4) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission.

### THE OFFERING

Common stock offered by Selling Stockholders:	5,000,000 shares, consisting of 2,500,000 outstanding shares of our common stock, 2,500,000 shares of our common stock issuable upon the exercise of Warrants.
Use of proceeds:	We will not receive any proceeds from the sale of shares in this offering.
Risk factors:	You should read the "Risk Factors" section on page 4 of this prospectus for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Nasdaq Capital Market symbol:	"NRBO"

### **RISK FACTORS**

Investing in our common stock involves a high degree of risk. Before you decide to invest in our common stock, you should carefully consider the risks described in the section captioned "Risk Factors" in our most recent <u>Annual Report on Form 10-K</u>, our most recent <u>Quarterly Report on Form 10-Q</u> and other filings we make with the Securities and Exchange Commission ("SEC"), from time to time, which are incorporated by reference herein in their entirety, together with the other information in this prospectus and documents incorporated by reference in this prospectus. The risks described in our most recent <u>Annual Report on Form 10-K</u>, our most recent <u>Quarterly Report on Form 10-Q</u> and the other filings incorporated by reference herein are not the only ones facing our company. Additional risks and uncertainties may also impair our business operations. If any of the risks described in our most recent <u>Annual Report on Form 10-K</u>, our most recent <u>Quarterly Report on Form 10-Q</u> and the other filings incorporated by reference herein occurs, our business, financial condition, results of operations and future growth prospects could be harmed. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment.

### **Risks Related to the Acquisition of ANA**

#### We may not obtain all of the benefits or recognize all of the synergies we anticipate from the ANA acquisition.

We acquired ANA because we believe that the combination of our companies will result in a stronger competitive company. However, we may encounter unanticipated events which could keep us from recognizing the benefits we anticipate from the acquisition.

The results of the combined company following the acquisition will depend in part upon the Company's ability to integrate ANA's business with the Company's business in an efficient and effective manner. The Company's attempt to integrate two companies that have previously operated independently may result in significant challenges, and the Company may be unable to accomplish the integration smoothly or successfully. The integration may require the dedication of significant management resources, which may temporarily distract management's attention from the day-to-day operations of the businesses of the combined company. In addition, the combined company may adjust the way in which ANA or the Company has conducted its operations and utilized its assets, which may require retraining and development of new procedures and methodologies. The process of integrating operations and making such adjustments after the acquisition could cause an interruption of, or loss of momentum in, the activities of one or more of the combined company's businesses and the loss of key personnel. Employee uncertainty, lack of focus, or turnover during the integration process may also disrupt the businesses of the combined company. Any inability of management to integrate the operations of the Company and ANA successfully could have a material adverse effect on the business and financial condition of the combined company.

In addition, the acquisition subjects the Company to contractual and other obligations and liabilities of ANA, some of which may be unknown. Although the Company and its legal and financial advisors have conducted due diligence on ANA and its business, there can be no assurance that the Company is aware of all obligations and liabilities of ANA. These liabilities, and any additional risks and uncertainties related to ANA's business and to the acquisition not currently known to the Company or that the Company may currently be aware of, but that prove to be more significant than assessed or estimated by the Company, could negatively impact the business, financial condition, and results of operations of the combined company.

### The work required to integrate ANA and the Company may divert management resources from operational matters and other strategic opportunities.

We expect that the successful integration of ANA's operations and their personnel will require substantial management time and attention. The amount of time that our management will be required to devote to the integration may divert their attention from the day-to-day operation of the business or other strategic opportunities. In addition, uncertainty regarding the acquisition, the integration process, and its impact on our customers, partners, employees and regulatory compliance may create additional demands on management's time and resources. If diversion of our management's attention impairs our results of operations or our ability to identify and pursue strategic opportunities, our share price could be negatively impacted.

### **Risks Related to ANA-001**

# Our pursuit of potential therapeutic and prophylactic treatments for COVID-19 is at an early stage and subject to many risks. We may be unable to receive approval for any of our COVID-19 product candidates a timely manner, if at all, and our COVID-19 product candidate may never be approved.

We may experience difficulties or delays in enrolling patients in clinical trials due to the impact of the global COVID-19 pandemic or other reasons. Many of the risks related to the development of these product candidates are beyond our control, including risks related to clinical development, the regulatory submission process, potential threats to our intellectual property rights and manufacturing delays or difficulties. We may be unable to produce an efficacious and/or approved product for the treatment of patients with early COVID-19 in a timely manner, if at all.

The results of preclinical studies from our COVID-19 product candidates may not be predictive of the results of clinical trials, and the results of any early-stage clinical trials we commence may not be predictive of the results of the later-stage clinical trials. There can be no assurance that any of our clinical trials for our COVID-19 product candidates, or any other of our product candidates, will ultimately be successful or support further clinical development. In addition, the interpretation of the data from our clinical trials of ANA-001 by FDA and other regulatory agencies may differ from our interpretation of such data and the FDA or other regulatory agencies may require that we conduct additional studies or analyses. Any of these factors could delay or prevent us from receiving regulatory approval of ANA-001 and there can be no assurance that our product candidate will be approved in a timely manner, if at all.

If the COVID-19 outbreak is effectively contained or the risk of coronavirus infection is diminished or eliminated before we can successfully develop and manufacture our product candidate, the commercial viability of such product candidate may be diminished or eliminated. We are also committing financial resources and personnel to the development of this product candidate which may cause delays in or otherwise negatively impact our other development programs, despite uncertainties surrounding the longevity and extent of coronavirus as a global health concern. Our business could be negatively impacted by our allocation of significant resources to a global health threat that is unpredictable and could rapidly dissipate or against which our treatment, if successfully developed, may not be effective. In addition, other parties are currently producing therapeutic and vaccine candidates for COVID-19, which may be more efficacious or may be approved prior to our product.

### The regulatory pathway for ANA-001 is continually evolving, and may result in unexpected or unforeseen challenges.

The speed at which parties are acting to create and test many therapeutics and vaccines for COVID-19 is unusual, and evolving or changing plans or priorities within the FDA, including those based on new knowledge of COVID-19 and how the disease affects the human body, may significantly affect the regulatory timeline for our product candidates. Results from ongoing clinical trials and discussions with regulatory authorities may raise new questions and require us to redesign proposed clinical trials, including revising proposed endpoints or adding new clinical trial sites or cohorts of subjects. Any such developments could delay the development timeline for our product candidates and materially increase the cost of the development for such candidates.

# In light of the COVID-19 pandemic, it is possible that one or more government entities may take actions that directly or indirectly have the effect of abrogating some of our rights or opportunities. If we were to develop a treatment for COVID-19, the economic value of such a therapeutic treatment to us could be limited.

Various government entities, including the U.S. government, are offering incentives, grants and contracts to encourage additional investment by commercial organizations into preventative and therapeutic agents against coronavirus, which may have the effect of increasing the number of competitors and/or providing advantages to known competitors. Accordingly, there can be no assurance that we will be able to successfully establish a competitive market share for our COVID-19 therapeutic treatment, if any.

### Even if we obtain favorable clinical results, we may not be able to obtain regulatory approval for, or successfully commercialize ANA-001.

We are not permitted to market ANA-001 in the United States until we receive approval of an NDA from the FDA, or in any foreign countries until we receive the requisite approval from such countries. As a condition to submitting an NDA to the FDA for ANA-001, we must complete our ongoing Phase 2 clinical trial, conduct and complete further Phase 3 clinical trials, and any additional nonclinical studies or clinical trials required by the FDA. To date, we have only completed the Phase 1 Single Ascending Dosing (SAD) study. ANA-001 may not be successful in clinical trials or receive regulatory approval. Further, ANA-001 may not receive regulatory approval even if it is successful in clinical trials. Obtaining approval of an NDA is a complex, lengthy, expensive and uncertain process that typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, the policies or regulations, or the type and amount of clinical data necessary to gain approval, may change during the course of a product candidate's clinical development and may vary among jurisdictions. Our development activities could be harmed or delayed by a partial shutdown of the U.S. government, including the FDA. We have not obtained regulatory approval for any product candidate and it is possible that ANA-001 will never obtain regulatory approval. The FDA may delay, limit or deny approval of ANA-001 for many reasons, including, among others:

- the results of our clinical trials may not meet the level of statistical or clinical significance required by the FDA for marketing approval;
- the FDA may disagree with the number, design, size, conduct or implementation of our clinical trials;
- the FDA may not approve the formulation, labeling or specifications of ANA-001;
- the FDA may require that we conduct additional clinical trials;
- the contract research organizations ("CROs") or the clinical investigators that we retain to conduct our clinical trials may take actions outside of our control that materially adversely impact our clinical trials;
- we, our CROs or clinical investigators may fail to perform in accordance with the FDA's good clinical practice ("GCP") requirements;
- the FDA may disagree with our interpretation of data from our preclinical studies and clinical trials;
- the FDA may find deficiencies with the manufacturing processes or facilities of third-party manufacturers with which we contract; or
- the policies or regulations of the FDA may significantly change in a manner that renders our clinical data insufficient for approval or may require that we amend or submit new clinical protocols.

In addition, similar reasons may cause the EMA or other regulatory authorities to delay, limit or deny approval of ANA-001 outside the United States. Any of these factors, many of which are beyond our control, could jeopardize our ability to obtain regulatory approval for and successfully market ANA-001.

Alternatively, even if we obtain regulatory approval, that approval may be for indications or patient populations that are not as broad as we intend or desire or may require labeling that includes significant use or distribution restrictions or safety warnings. We may also be required to perform additional, unanticipated clinical trials to obtain approval or be subject to additional post marketing testing requirements to maintain regulatory approval. In addition, regulatory authorities may withdraw their approval of a product or the FDA may require a risk evaluation and mitigation strategy ("REMS") for a product, which could impose restrictions on its distribution. Any of the foregoing scenarios could materially harm the commercial prospects for our product candidates.

## We face substantial competition, which may result in others discovering, developing or commercializing products before, or more successfully, than we do.

The development and commercialization of new products is highly competitive. Our future success depends on our ability to demonstrate and maintain a competitive advantage with respect to the development and commercialization of our product candidates. Our objective is to develop and commercialize new products with superior efficacy, convenience, tolerability and safety. In many cases, the products that we commercialize will compete with existing, market-leading products.

Many of our potential competitors have significantly greater financial, manufacturing, marketing, drug development, technical and human resources than we do. Large pharmaceutical companies, in particular, have extensive experience in clinical testing, obtaining regulatory approvals, recruiting patients and in manufacturing pharmaceutical products. In particular, these companies have greater experience and expertise in securing government contracts and grants to support their research and development efforts, conducting testing and clinical trials, obtaining regulatory approvals to market products, manufacturing such products on a broad scale and marketing approved products. These companies also have significantly greater research and marketing capabilities than we do and may also have products that have been approved or are in late stages of development, and have collaborative arrangements in our target markets with leading companies and research institutions. Established pharmaceutical companies may also invest heavily to accelerate discovery and development of novel compounds or to in-license novel compounds that could make the product that we develop obsolete. As a result of all of these factors, our competitors may succeed in obtaining patent protection and/or FDA approval or discovering, developing and commercializing products before, or more effectively than, we do. In addition, any new product that competes with an approved product must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to overcome price competition and to be commercially successful. If we are not able to compete effectively against potential competitors, our business will not grow and our financial condition and operations will suffer.

### CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this prospectus or incorporated by reference herein, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans and objectives of management and expected market growth, are forward-looking statements. We may, in some cases, use words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "target," "contemplate," "potential," "predict," "project," "should," "will," "would" or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes to identify these forward-looking statements. In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. The forward-looking statements are made and, while we believe such information forms a reasonable basis for such statements at the time made, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information.

These forward-looking statements include, among other things, statements about:

- our plans to initiate and expand clinical trials of our product candidates and our expectations for the timing, quantity and quality of information to be reported from our clinical trials of ANA-001, NB-01, NB-02 and Gemcabene;
- planned clinical trials for our product candidates, whether conducted by us or by any future collaborators, including the timing of these trials and of the anticipated results;
- our ability to discover and develop compounds suitable for clinical development and the timing for designation of future development candidates;
- our ability to replicate in any clinical trial of one of our product candidates the results we observed in preclinical or earlier clinical studies of such product candidate;
- our plans to research, develop, seek approval for, manufacture and commercialize our current and future product candidates;
- our plans to develop and seek approval of companion diagnostic tests for use in identifying patients who may benefit from treatment with our products and product candidates;
- our ability to enter into, and the terms and timing of, any collaborations, license agreements, or other arrangements;
- the potential benefits of any future collaboration;
- · developments relating to our competitors and our industry;
- the impact of government laws and regulations;
- the timing of and our ability to file new drug applications and obtain and maintain regulatory approvals for our product candidates;
- the rate and degree of market acceptance and clinical utility of any products for which we receive marketing approval;
- our commercialization, marketing and manufacturing capabilities and strategy;
- our intellectual property position and strategy;
- our ability to identify additional products or product candidates with significant commercial potential;
- our expectations related to the use of our current cash and cash equivalents and the period of time in which such capital will be sufficient to fund our planned operations;
- our estimates regarding expenses, future revenue, capital requirements and need for additional financing; and
- other risks and uncertainties, including those listed under the caption "Risk Factors" in our most recent <u>Annual Report on Form 10-K</u>, our most recent <u>Quarterly Report on Form 10-Q</u>, and other filings we make with the SEC.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained or incorporated by reference in this prospectus. We have included important factors in the cautionary statements included or incorporated by reference in this prospectus, particularly in the "Risk Factors" section, that could cause actual results or events to differ materially from the forward-looking statements that we make. In particular, the extent to which the COVID-19 outbreak continues to impact our operations and those of the third parties on which we rely will depend on future developments, which are highly uncertain and cannot be predicted with confidence, including the duration and severity of the outbreak, additional or modified government actions, and the actions that may be required to contain the virus or treat its impact. COVID-19 has and may continue to adversely impact our operations and workforce, including our discovery research, supply chain and clinical trial operations activities, which in turn could have an adverse impact on our business and financial results. Our forward-looking statements also do not reflect the potential impact of any future acquisitions, mergers, dispositions, collaborations, joint ventures or investments that we may make or enter into.

You should read this prospectus, the documents incorporated by reference in this prospectus and the documents that we have filed as exhibits to the registration statement of which this prospectus is a part completely and with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

### **USE OF PROCEEDS**

We are filing the registration statement of which this prospectus forms a part to permit the holders of the shares of our common stock described in the section entitled "Selling Stockholders" to resell such shares. We are not selling any securities under this prospectus and we will not receive any proceeds from the sale or other disposition of shares of our common stock held by the Selling Stockholders.

The Selling Stockholders will pay any placement agent discounts and commissions and expenses incurred by the Selling Stockholders for brokerage, accounting, tax or legal services or any other expenses incurred by the Selling Stockholders in disposing of these shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, Nasdaq listing fees and fees and expenses of our counsel and our accountants.

### PRIVATE PLACEMENT OF SHARES OF COMMON STOCK AND WARRANTS

On January 18, 2021, we entered into a Securities Purchase Agreement with each of the Selling Stockholders named herein, see "Selling Stockholders," which we agreed to issue and sell an aggregate of 5,000,000 shares of common stock, consisting of 2,500,000 outstanding shares of our common stock and 2,500,000 shares of our common stock issuable upon the exercise of the Warrants (the "Private Placement"). The shares of common stock issued and the common stock issuable upon the exercise of the Warrants were issued pursuant to an exemption from the registration requirements of the Securities Act provided in Section 4(a)(2) thereof and/or Rule 506 of Regulations D promulgated thereunder. We received gross proceeds of \$10,000,000 at the closing on January 21, 2021, before deducting fees owed to the placement agent and other fees applicable to the offering. The aforementioned Securities Purchase Agreement contains customary representations, warranties and agreements by the Company, customary conditions to closing, indemnification obligations of the Company, other obligations of the parties and termination provisions.

Each Warrant is exercisable beginning July 21, 2021 at an exercise price of \$6.03 per share, subject to adjustment as provided therein, and terminated five and one-half years after the initial exercise date. The exercise price and number of the shares of our common stock issuable upon exercising the Warrants will be subject to adjustment in the event of any stock dividends and splits, reverse stock split, recapitalization, reorganization or similar transaction, as described therein.

### SELLING STOCKHOLDERS

The common stock being offered by the Selling Stockholders are those previously issued to the Selling Stockholders, and those issuable to the Selling Stockholders, upon exercise of the Warrants. For additional information regarding the issuances of those shares of common stock and Warrants, see "Private Placement of Shares of Common Stock and Warrants" above. We are registering the shares of common stock in order to permit the Selling Stockholders to offer the shares for resale from time to time. Except for the ownership of the shares of common stock and the Warrants, the Selling Stockholders have not had any material relationship with us within the past three years.

The table below lists the Selling Stockholders and other information regarding the beneficial ownership of the shares of common stock by each of the Selling Stockholders. The second column lists the number of shares of common stock beneficially owned by each Selling Stockholders based on its ownership of the shares of common stock and Warrants, as of January 25, 2021, assuming exercise of the Warrants held by the Selling Stockholders on that date, without regard to any limitations on exercises. The third column lists the shares of common stock being offered by this prospectus by the Selling Stockholders.

In accordance with the terms of a registration rights agreement with the Selling Stockholders, this prospectus generally covers the resale of the sum of (i) the number of shares of common stock issued to the selling shareholders in the "Private Placement of Shares of Common Stock and Warrants" described above and (ii) the maximum number of shares of common stock issuable upon exercise of the related Warrants, determined as if the outstanding Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the registration right agreement, without regard to any limitations on the exercise of the Warrants. The fourth column assumes the sale of all of the shares offered by the Selling Stockholders pursuant to this prospectus.

Under the terms of the Warrants, a Selling Stockholder may not exercise the Warrants to the extent such exercise would cause such Selling Stockholder, together with its affiliates and attribution parties, to beneficially own a number of shares of common stock which would exceed 4.99% or 9.99%, as applicable, of our then outstanding common stock following such exercise, excluding for purposes of such determination shares of common stock issuable upon exercise of the Warrants which have not been exercised. The number of shares in the second column does not reflect this limitation. The Selling Stockholders may sell all, some or none of their shares in this offering. See "Plan of Distribution."

	Number of shares of Common Stock Owned Prior to	Maximum Number of shares of Common Stock to be Sold Pursuant to	Number of shares of Common Stock Owned After Offering(3)	
Name of Selling Stockholder	Offering(1)(2)	this Prospectus	Number	Percent
3i, LP(4)	250,000	500,000		
Armistice Capital Master Fund Ltd.(5)	100,000	200,000	—	_
Bigger Capital Fund, LP(6)	250,000	500,000	—	
Boothbay Absolute Return Strategies LP(7)	66,240	132,480	—	—
Boothbay Diversified Alpha Master Fund, LP(8)	33,760	67,520	—	
Cavalry Fund I LP(9)	125,000	250,000	—	_
Cavalry Special Ops Fund, LLC(10)	125,000	250,000	—	
CVI Investments, Inc.(11)	250,000	500,000	—	_
Intracoastal Capital, LLC(12)	375,480	750,000	480	*
Kingsbrook Opportunities Master Fund LP(13)	25,792	50,000	792	*

<sup>\*</sup> Less than 1%.

- (1) This table and the information in the notes below are based upon information supplied by the Selling Stockholders and are based on shares of common stock outstanding as of January 21, 2021. Beneficial ownership is determined in accordance with Rule 13d-3 under the Securities Act, and includes any shares as to which the Selling Stockholder has sole or shared voting power or investment power, and also any shares which the Selling Stockholder has the right to acquire within 60 days of the date hereof, whether through the exercise or conversion of any stock option, convertible security, warrant or other right. The indication herein that shares are beneficially owned is not an admission on the part of the Selling Stockholder that he, she or it is a direct or indirect beneficial owner of those shares.
- (2) All convertible securities of the Company held by the Selling Stockholders are subject to beneficial ownership limitations such that the shares of warrants may not be converted or exercised, respectively, if it would result in the holder exceeding the beneficial ownership limitation. The Warrants restrict the ability of the holder to exercise the warrants to the extent that the holder and its affiliates would beneficially own more than 4.99% of the common stock following such exercise, provided, however, that the holder has the ability to waive such ownership limitation upon 61 days prior notice and, provided, further, that in no event may the holder beneficially own more than 9.99% of the Company's common stock following such exercise.
- (3) We do not know when or in what amounts a Selling Stockholder may offer shares for sale. The Selling Stockholders might not sell any or might sell all of the shares offered by this prospectus. Because the Selling Stockholders may offer all or some of the shares pursuant to this offering, and because there are currently no agreements, arrangements or understandings with respect to the sale of any of the shares, we cannot estimate the number of the shares that will be held by the Selling Stockholders after completion of the offering. However, for purposes of this table, we have assumed that, after completion of the offering, none of the shares covered by this prospectus will be held by the Selling Stockholders, including common stock issuable upon exercise of the Warrants issued in the Private Placement.
- (4) The shares reported under "Number of shares of Common Stock Owned Prior to Offering" consists of 250,000 shares of the common stock held by 3i, LP issued in the Private Placement of shares by the Company on January 21, 2021. In addition to the foregoing shares, as of January 25, 2021, 3i, LP held Warrants to purchase 250,000 shares of common stock that are not included in the shares reported under "Number of shares of Common Stock Owned Prior to Offering" because they are not exercisable until July 21, 2021. The shares reported under "Number of shares of Common Stock Being

Offered" consist of (i) the shares reported as beneficially owned by 3i, LP under "Number of shares of Common Stock Owned Prior to Offering" and (ii) the shares issuable upon exercise of the Warrants held by 3i, LP described above, in each case, without giving effect to the beneficial ownership limitation set forth in the Warrants. Maier J. Tarlow has sole voting and dispositive power with respect to the shares of common stock held by 3i, LP. The address of 3i, LP is 3i Fund, 140 Broadway 38 FL, New York, New York 10005.

- (5) The shares reported under "Number of shares of Common Stock Owned Prior to Offering" consists of 100,000 shares of the common stock held by Armistice Capital Master Fund Ltd. issued in the Private Placement of shares by the Company on January 21, 2021. In addition to the foregoing shares, as of January 25, 2021, Armistice Capital Master Fund Ltd. held Warrants to purchase 100,000 shares of common stock that are not included in the shares reported under "Number of shares of Common Stock Owned Prior to Offering" because they are not exercisable until July 21, 2021. The shares reported under "Number of shares of Common Stock Being Offered" consist of (i) the shares reported as beneficially owned by Armistice Capital Master Fund Ltd. under "Number of shares of Common Stock Owned Prior to Offering" and (ii) the shares issuable upon exercise of the Warrants held by Armistice Capital Master Fund Ltd. described above, in each case, without giving effect to the beneficial ownership limitation set forth in the Warrants. Steven Boyd has sole voting and dispositive power with respect to the shares of common stock held by Armistice Capital Master Fund Ltd. is c/o Armistice Capital, LLC, 510 Madison Avenue, 7th Floor, New York, New York 10022.
- (6) The shares reported under "Number of shares of Common Stock Owned Prior to Offering" consists of 250,000 shares of the common stock held by Bigger Capital Fund, LP issued in the Private Placement of shares by the Company on January 21, 2021. In addition to the foregoing shares, as of January 25, 2021, Bigger Capital Fund, LP held Warrants to purchase 250,000 shares of common stock that are not included in the shares reported under "Number of shares of Common Stock Owned Prior to Offering" because they are not exercisable until July 21, 2021. The shares reported under "Number of shares of Common Stock Being Offered" consist of (i) the shares reported as beneficially owned by Bigger Capital Fund, LP under "Number of shares of Common Stock Owned Prior to Offering" and (ii) the shares issuable upon exercise of the Warrants held by Bigger Capital Fund, LP described above, in each case, without giving effect to the beneficial ownership limitation set forth in the Warrants. Michael Bigger has sole voting and dispositive power with respect to the shares of common stock held by Bigger Capital Fund, LP is 11434 Glowing Sunset, Las Vegas, Nevada 89135.

- (7) The shares reported under "Number of shares of Common Stock Owned Prior to Offering" consists of 66,240 shares of the common stock held by Boothbay Absolute Return Strategies LP issued in the Private Placement of shares by the Company on January 21, 2021. In addition to the foregoing shares, as of January 25, 2021, Boothbay Absolute Return Strategies LP held Warrants to purchase 66,240 shares of common stock that are not included in the shares reported under "Number of shares of Common Stock Owned Prior to Offering" because they are not exercisable until July 21, 2021. The shares reported under "Number of shares of Common Stock Being Offered" consist of (i) the shares reported as beneficially owned by Boothbay Absolute Return Strategies LP under "Number of shares of Common Stock Owned Prior to Offering" and (ii) the shares issuable upon exercise of the Warrants held by Boothbay Absolute Return Strategies LP described above, in each case, without giving effect to the beneficial ownership limitation set forth in the Warrants. Boothbay Absolute Return Strategies LP, a Delaware limited partnership (the "Fund"), is managed by Boothbay Fund Management, LLC, a Delaware limited liability company (the "Adviser"). The Adviser, in its capacity as the investment manager of the Fund, has the power to vote and the power to direct the disposition of all securities held by the Fund. Ari Glass is the Managing Member of the Adviser. Each of the Fund, the Adviser and Mr. Glass disclaim beneficial ownership of these securities, except to the extent of any pecuniary interest therein. The address of Boothbay Absolute Return Strategies LP is c/o Kingsbrook Partners LP, 689 Fifth Avenue, 12th Floor, New York, New York 10022.
- (8) The shares reported under "Number of shares of Common Stock Owned Prior to Offering" consists of 33,760 shares of the common stock held by Boothbay Diversified Alpha Master Fund, LP issued in the Private Placement of shares by the Company on January 21, 2021. In addition to the foregoing shares, as of January 25, 2021, Boothbay Diversified Alpha Master Fund, LP held Warrants to purchase 33,760 shares of common stock that are not included in the shares reported under "Number of shares of Common Stock Owned Prior to Offering" because they are not exercisable until July 21, 2021. The shares reported under "Number of shares of Common Stock Being Offered" consist of (i) the shares reported as beneficially owned by Boothbay Diversified Alpha Master Fund, LP under "Number of shares of Common Stock Owned Prior to Offering" and (ii) the shares issuable upon exercise of the Warrants held by Boothbay Diversified Alpha Master Fund, LP described above, in each case, without giving effect to the beneficial ownership limitation set forth in the Warrants. Boothbay Diversified Alpha Master Fund, LP, a Cayman Islands limited partnership (the "Fund"), is managed by Boothbay Fund Management, LLC, a Delaware limited liability company (the "Adviser"). The Adviser, in its capacity as the investment manager of the Fund, has the power to vote and the power to direct the disposition of all securities held by the Fund. Ari Glass is the Managing Member of the Adviser. Each of the Fund, the Adviser and Mr. Glass disclaim beneficial ownership of these securities, except to the extent of any pecuniary interest therein. The address of Boothbay Diversified Alpha Master Fund, LP is c/o Kingsbrook Partners LP, 689 Fifth Avenue, 12th Floor, New York, New York 10022.
- (9) The shares reported under "Number of shares of Common Stock Owned Prior to Offering" consists of 125,000 shares of the common stock held by Cavalry Fund I LP issued in the Private Placement of shares by the Company on January 21, 2021. In addition to the foregoing shares, as of January 25, 2021, Cavalry Fund I LP held Warrants to purchase 125,000 shares of common stock that are not included in the shares reported under "Number of shares of Common Stock Owned Prior to Offering" because they are not exercisable until July 21, 2021. The shares reported under "Number of shares of Common Stock Being Offered" consist of (i) the shares reported as beneficially owned by Cavalry Fund I LP under "Number of shares of Common Stock Owned Prior to Offering" and (ii) the shares issuable upon exercise of the Warrants held by Cavalry Fund I LP described above, in each case, without giving effect to the beneficial ownership limitation set forth in the Warrants. Thomas Walsh has sole voting and dispositive power with respect to the shares of common stock held by Cavalry Fund I LP is 82 E. Allendale Road, Suite 5B, Saddle River, New Jersey 07458.
- (10) The shares reported under "Number of shares of Common Stock Owned Prior to Offering" consists of 125,000 shares of the common stock held by Cavalry Special Ops Fund, LLC issued in the Private Placement of shares by the Company on January 21, 2021. In addition to the foregoing shares, as of January 25, 2021, Cavalry Special Ops Fund, LLC held Warrants to purchase 125,000 shares of common stock that are not included in the shares reported under "Number of shares of Common Stock Owned Prior to Offering" because they are not exercisable until July 21, 2021. The shares reported under "Number of shares of Common Stock Being Offered" consist of (i) the shares reported as beneficially owned by Cavalry Special Ops Fund, LLC under "Number of shares of Common Stock Owned Prior to Offering" and (ii) the shares issuable upon exercise of the Warrants held by Cavalry Special Ops Fund, LLC described above, in each case, without giving effect to the beneficial ownership limitation set forth in the Warrants. Thomas Walsh has sole voting and dispositive power with respect to the shares of common stock held by Cavalry Special Ops Fund, LLC. The address of Cavalry Special Ops Fund, LLC is 82 E. Allendale Road, Suite 5B, Saddle River, New Jersey 07458.
- (11) The shares reported under "Number of shares of Common Stock Owned Prior to Offering" consists of 250,000 shares of the common stock held by CVI Investments, Inc. issued in the Private Placement of shares by the Company on January 21, 2021. In addition to the foregoing shares, as of January 25, 2021, CVI Investments, Inc. held Warrants to purchase 250,000 shares of common stock that are not included in the shares reported under "Number of shares of Common Stock Owned Prior to Offering" because they are not exercisable until July 21, 2021. The shares reported under "Number of shares of Common Stock Being Offered" consist of (i) the shares reported as beneficially owned by CVI Investments, Inc. under "Number of shares of Common Stock Owned Prior to Offering" and (ii) the shares issuable upon exercise of the Warrants held by CVI Investments, Inc. described above, in each case, without giving effect to the beneficial ownership limitation set forth in the Warrants. Heights Capital Management, Inc., the authorized agent of CVI Investments, Inc ("CVI"), has discretionary authority to vote and dipose of the shares held by CVI and may be deemed to be the beneficial owner of these shares. Martin Kobinger, in his capacity as Investment Manager of Heights Capital Management, Inc., may also be deemed to have investment discretion and voting power over the shares held by CVI. Mr. Kobinger disclaims any such beneficial ownership of the shares. CVI Investments, Inc. is c/o Heights Capital Management, 101 California Street, Suite 3250, San Francisco, California 94111.
- (12) The shares reported under "Number of shares of Common Stock Owned Prior to Offering" consists of (i) 375,000 shares of the common stock held by Intracoastal Capital, LLC issued in the Private Placement of shares by the Company on January 21, 2021 and (i) 480 shares of common stock underlying warrants exercisable within 60 days of January 25, 2021 held by Intracoastal Capital, LLC. In addition to the foregoing shares, as of January 25, 2021, Intracoastal Capital, LLC held Warrants to purchase 375,000 shares of common stock that are not included in the shares reported under "Number of shares of Common Stock Owned Prior to Offering" because they are not exercisable until July 21, 2021. The shares reported under "Number of shares of Common Stock Being Offered" consist of (i) the shares reported as beneficially owned by Intracoastal Capital, LLC under "Number of shares of Common Stock Owned Prior to Offering" and (ii) the shares issuable upon exercise of the Warrants held by Intracoastal Capital, LLC described above, in each case, without giving effect to the beneficial ownership limitation set forth in the Warrants. Mitchell P. Kopin ("Mr. Kopin") and Daniel B. Asher ("Mr. Asher"), each of whom are managers of Intracoastal Capital LLC ("Intracoastal"), have shared voting control and investment discretion over the securities reported herein that are held by Intracoastal. As a result, each of Mr. Kopin and Mr. Asher may be deemed to have beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) of the

securities reported herein that are held by Intracoastal. The address of Intracoastal Capital, LLC is 2211A Lakeside Drive, Bannockburn, Illinois 60015.

(13) The shares reported under "Number of shares of Common Stock Owned Prior to Offering" consists of (i) 25,000 shares of the common stock held by Kingsbrook Opportunities Master Fund LP issued in the Private Placement of shares by the Company on January 21, 2021 and (i) 792 shares of common stock underlying warrants exercisable within 60 days of January 25, 2021 held by Kingsbrook Opportunities Master Fund LP. In addition to the foregoing shares, as of January 25, 2021, Kingsbrook Opportunities Master Fund LP held Warrants to purchase 25,000 shares of common stock that are not included in the shares reported under "Number of shares of Common Stock Owned Prior to Offering" because they are not exercisable until July 21, 2021. The shares reported under "Number of shares of Common Stock Being Offered" consist of (i) the shares reported as beneficially owned by Kingsbrook Opportunities Master Fund LP under "Number of shares of Common Stock Owned Prior to Offering" and (ii) the shares issuable upon exercise of the Warrants held by Kingsbrook Opportunities Master Fund LP described above, in each case, without giving effect to the beneficial ownership limitation set forth in the Warrants. Kingsbrook Partners LP ("Kingsbrook Partners") is the investment manager of Kingsbrook Opportunities Master Fund LP ("Kingsbrook Opportunities") and consequently has voting control and investment discretion over securities held by Kingsbrook Opportunities. Kingsbrook Opportunities GP LLC ("Opportunities GP") is the general partner of Kingsbrook Opportunities and may be considered the beneficial owner of any securities deemed to be beneficially owned by Kingsbrook Opportunities. KB GP LLC ("GP LLC") is the general partner of Kingsbrook Partners and may be considered the beneficial owner of any securities deemed to be beneficially owned by Kingsbrook Partners. Ari J. Storch, Adam J. Chill and Scott M. Wallace are the sole managing members of Opportunities GP and GP LLC and as a result may be considered beneficial owners of any securities deemed beneficially owned by Opportunities GP and GP LLC. Each of Kingsbrook Partners, Opportunities GP, GP LLC and Messrs. Storch, Chill and Wallace disclaim beneficial ownership of these securities. The address of Kingsbrook Opportunities Master Fund LP is c/o Kingsbrook Partners LP, 689 Fifth Avenue, 12th Floor, New York, New York 10022.

### **Relationship with the Selling Stockholders**

In addition to the Securities Purchase Agreement, on January 18, 2021, in connection with the Private Placement, we entered into a registration rights agreement with the Selling Stockholders, or the Registration Rights Agreement. Also on January 21, 2021, we entered into the Warrants with the Selling Stockholders.

### **Registration Rights Agreement**

Pursuant to the Registration Rights Agreement with each of the selling stockholders, we agreed to prepare and file with the SEC a registration statement that permits the resale of the selling stockholders' shares and, subject to certain exceptions, use reasonable best efforts to keep the registration statement of which this prospectus forms a part effective under the Securities Act until the earlier of until the date that all registrable securities covered by the registration statement of which this prospectus forms a part: (i) have been sold, thereunder or pursuant to Rule 144, or (ii) may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 and without the requirement for the Company to be in compliance with the current public information requirement under Rule 144, as determined by the counsel to the Company pursuant to a written opinion letter to such effect, addressed and acceptable to the Company's transfer agent and the affected Selling Stockholder.

We have also agreed, among other things, to indemnify the Selling Stockholders and their officers, directors, members, employees and agents, successors and assigns under the registration statement from certain liabilities and to pay all fees and expenses (excluding any legal fees of the selling holder(s), and any underwriting discounts and selling commissions) incident to our obligations under the Registration Rights Agreement.

### Warrants

The Warrants are exercisable at any time on or after July 21, 2021 and entitle the Selling Stockholders to purchase shares of our common stock until July 21, 2026 at a price per share equal to \$6.03 per share, subject to certain adjustments.

### PLAN OF DISTRIBUTION

Each Selling Stockholder of the securities and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on Nasdaq or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling securities:

- · ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- $\cdot$  an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- · a combination of any such methods of sale; or
- · any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440.

In connection with the sale of the securities or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the securities. The Company has agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the Selling Stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for the Company to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.



Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

### LEGAL MATTERS

Honigman LLP, Kalamazoo, Michigan, will issue a legal opinion as to the validity of the securities offered by this prospectus.

### EXPERTS

The consolidated financial statements as of December 31, 2019 and 2018 and for each of the two years in the period ended December 31, 2019 incorporated by reference in this Prospectus and in the Registration Statement have been so incorporated in reliance on the report of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting. The report on the consolidated financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

### WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You can access the electronic versions of these filings, free of charge, on the SEC's internet website found at <u>http://www.sec.gov</u>. These filings will be available as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information found on, or that may be accessed through, our website is not incorporated by reference in this prospectus and should not be considered a part of this prospectus.

This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits included in the registration statement for further information about us and the securities offered by us. Statements in this prospectus concerning any document filed as an exhibit to the registration statement or otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

### INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC's rules allow us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede that information. Any statement contained in a previously filed document incorporated by reference shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus modifies or replaces that statement.

We incorporate by reference the documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") between the date of this prospectus and the termination of the offering of the securities described in this prospectus. We are not, however, incorporating by reference any documents or portions thereof, whether specifically listed below or filed in the future, that are not deemed "filed" with the SEC.

- <u>Our Annual Report on Form 10-K for the year ended December 31, 2019</u>, filed with the SEC on March 30, 2020;
- the information specifically incorporated by reference into our <u>Annual Report on Form 10-K for the fiscal year ended December 31, 2019</u> from our <u>definitive proxy statement on Schedule 14A (other than information furnished rather than filed) filed with the SEC on April 29, 2020;</u>
- Our Quarterly Reports on Form 10-Q for the quarters ended <u>March 31, 2020</u>, June 30, 2020 and <u>September 30, 2020</u>, filed with the SEC on May 20, 2020, August 11, 2020 and November 13, 2020, respectively;
- Our Current Reports on Form 8-K or Form 8-K/A (other than information furnished rather than filed) filed with the SEC on January 7, 2020, January 22, 2020, February 4, 2020, February 13, 2020, February 20, 2020, April 15, 2020, May 26, 2020, June 18, 2020, September 2, 2020, January 6, 2021, January 13, 2021, and January 21, 2021, respectively;
- The description of our common stock contained in our <u>registration statement on Form 8-A (File No. 00137809)</u> filed with the SEC on June 20, 2016, pursuant to Section 12(b) of the Exchange Act, including any amendments or reports filed for the purpose of updating such descriptions; and
- Any other filings we make pursuant to the Exchange Act after the date of filing the registration statement of which this prospectus is a part and prior to effectiveness of the registration statement.

These documents may also be accessed on our website at *www.neurobopharma.com*. Information contained in, or accessible through, our website is not a part of this prospectus.

We will provide without charge to each person, including any beneficial owners, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all reports or documents referred to above which have been or may be incorporated by reference into this prospectus but not delivered with this prospectus, excluding exhibits to those reports or documents unless they are specifically incorporated by reference into those documents.

You may request a free copy of any of the documents incorporated by reference in this prospectus by writing or telephoning us at the following address:

NeuroBo Pharmaceuticals, Inc. 200 Berkeley Street Office 19th Floor Boston, Massachusetts 02116 Attention: Corporate Secretary (857) 702-9600

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference into this prospectus and any accompanying prospectus. In order to ensure timely delivery of the documents incorporated by reference in this prospectus, any request should be made no later than five business days prior to the date on which you plan to make a final investment decision.

### 5,000,000 Shares



### **Common Stock**

PROSPECTUS

January 29, 2021